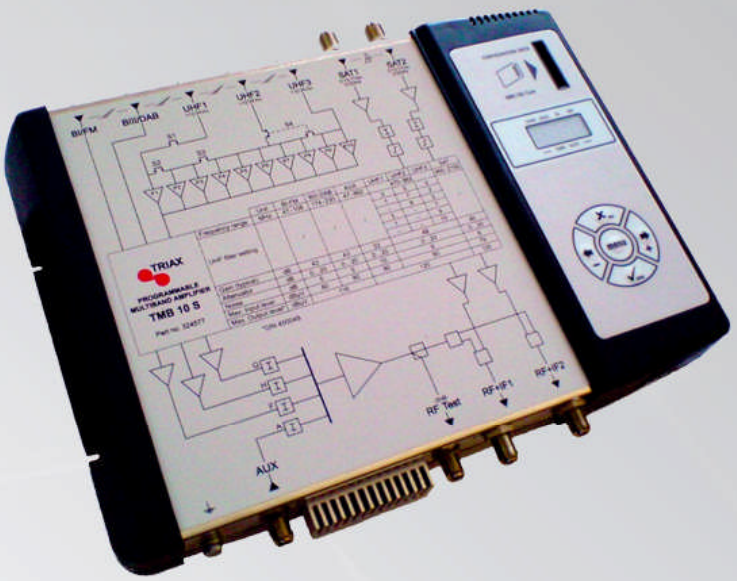


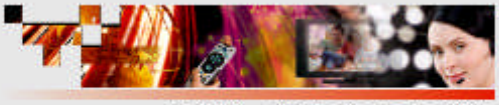
Programmable Multiband Amplifier /

TMB 10C Ref.: 324578

V 2.0

ENG / ES

User Manual



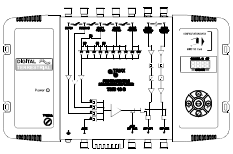
TRIAX – Su mejor conexión

Contents

Contents 2
Safety instruction 3
Control and connections elements 4
Menu structure 5
Main menu 5
LED Display 5
Programming keys 5
Start programming 6
CHAN (channel) menu 6
LEVEL menu 7
IN (input) menu 8
SAT menu 10
AUTO menu 11
CARD menu 12
EHP (Export menu) 14
InP (Import menu) 15
RESET to factory settings 15
Extra features 16
Firmware version 16
Fine tuning 16
Technical specifications 17

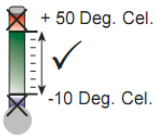
Safety instruction

Caution



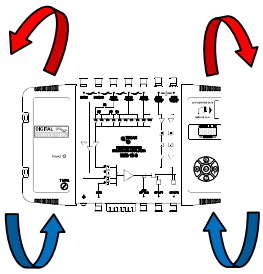
[GB] Caution! Authorized, qualified personal may open the unit. Disconnect the power cord before removing the cover.
[ES] Precaución! Solo el personal autorizado o cualificado puede abrir el amplificador. ¡Desconecte el amplificador de la toma de tensión quitar la cubierta!
[FI] Huom! Laitteen kannen saa avata vain valtuutettu huoltohenkilö. Irroita verkkojohto ennen kannen avaamista.

Heat exposure



[GB] Environmental temperature do not exceed +50 deg.
[ES] La temperatura ambiente no debe exceder de +50º C.
[FI] Ympäristön lämpötila ei saa olla yli +50 C

Ventilation

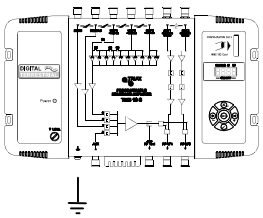


Humidity

max. 80%

Earthing

[GB] In accordance with EN 50083 / the installation must comply with your local safety regulation.
[ES] De acuerdo a la norma EN 50083 / La instalación debe de cumplir las normas locales de seguridad.
[FI] Asennuksen tulee täyttää normin EN 50083 turvallisuusvaatimukset.



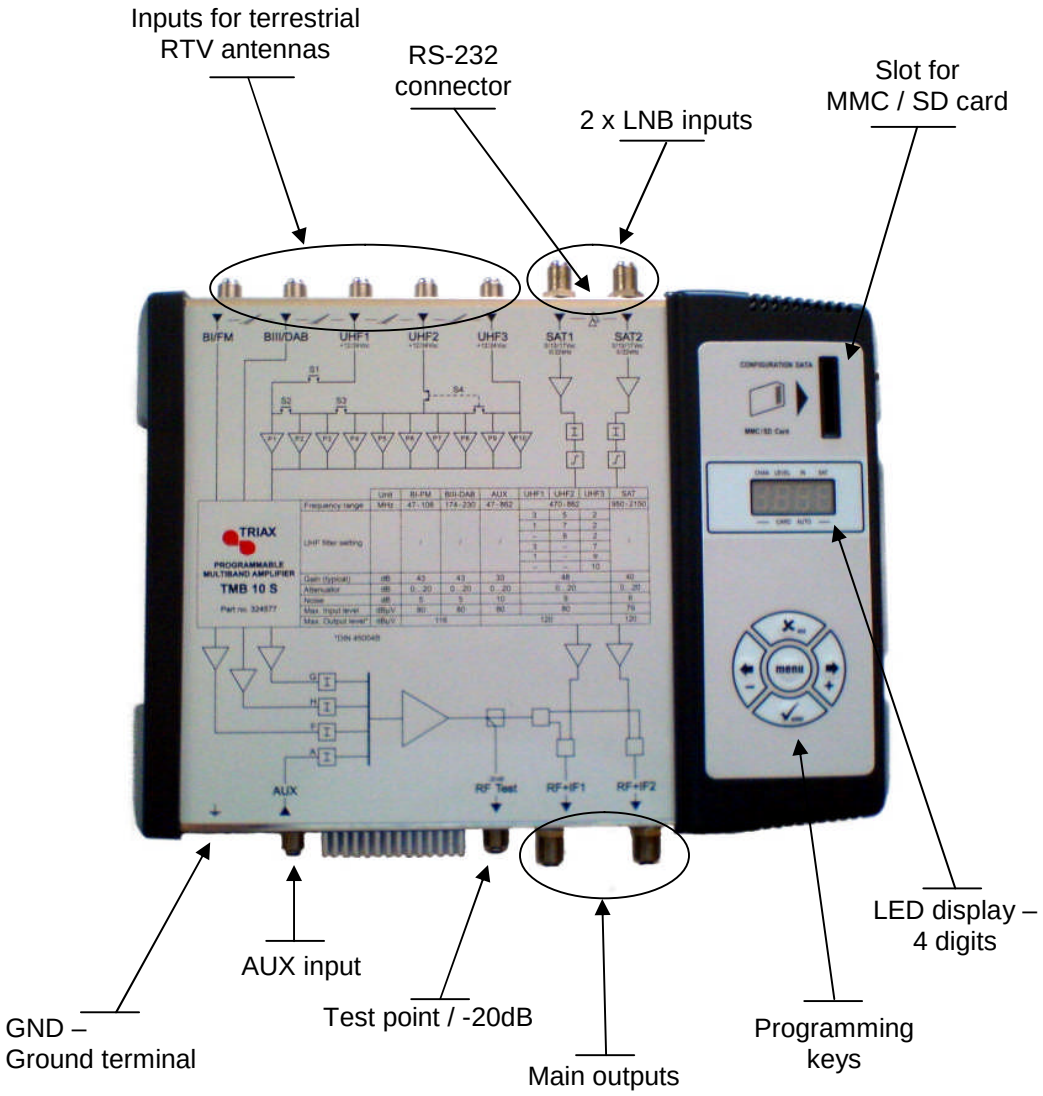
IMPORTANT!!!

Any connection of the antennas and LNB's must be done while the TMB-10 unit is not connected to the mains.

Control and connections elements

IMPORTANT!!!

Any connection of the antennas and LNB's must be done while the TMB-10 unit is not connected to the mains.



IMPORTANT!!!

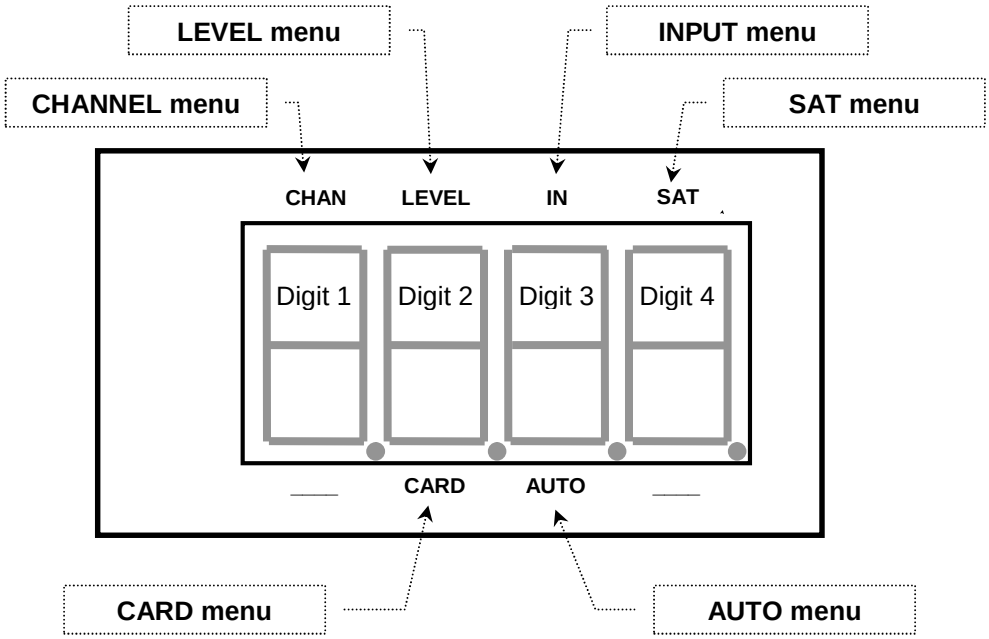
If you noticed bad performance of the preamplifier, disconnect the mains for at least 15 second and connect the power to the unit again.

Menu structure

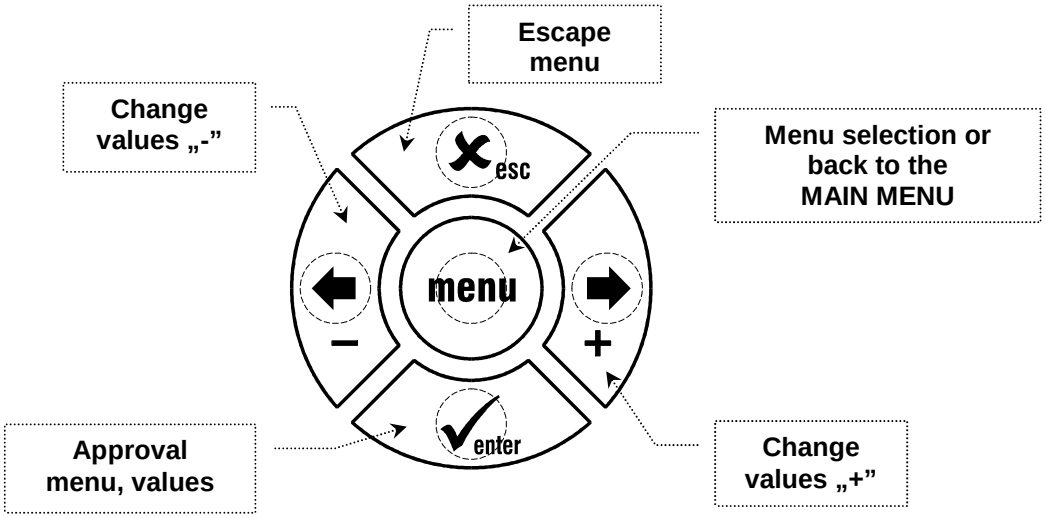
Main menu

Main menu consists of 6 position responsible for specific functions of the amplifier. You can choose the proper menu by switching the MENU key. The lighting dash moves from left to right (1 to 6 and then 1 again). The menu is set by pressing ENTER key when the dash is on specific place. In general: if any parameters lights continuously, that means you are checking the parameter, if the parameter flashes you can change it's value. When flashing, ENTER key accepts settings, ESC key leaves appropriate menu level without saving new settings.

LED Display

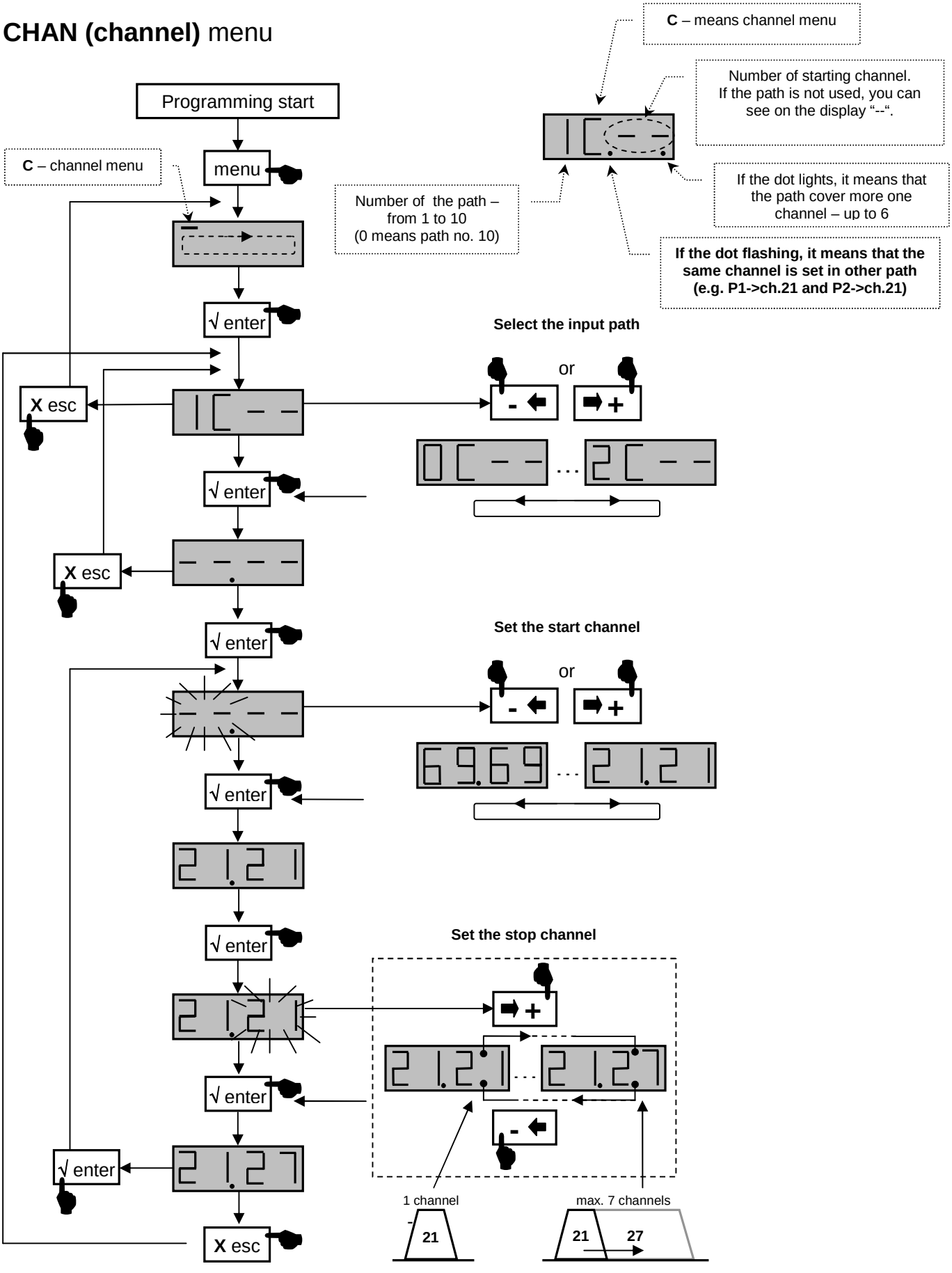


Programming keys

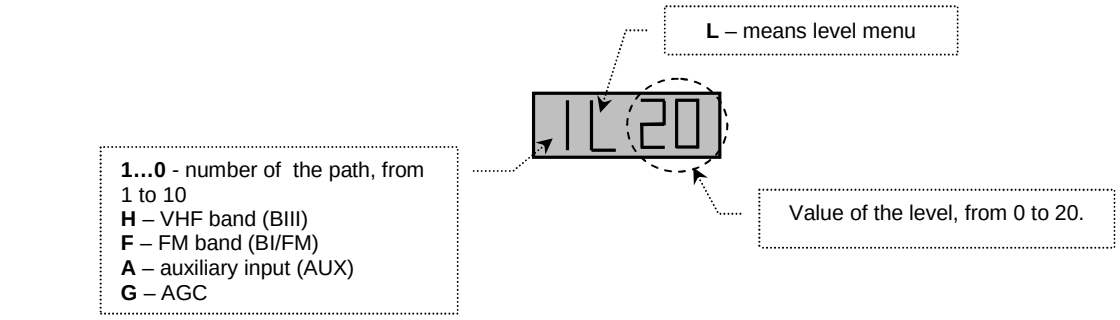


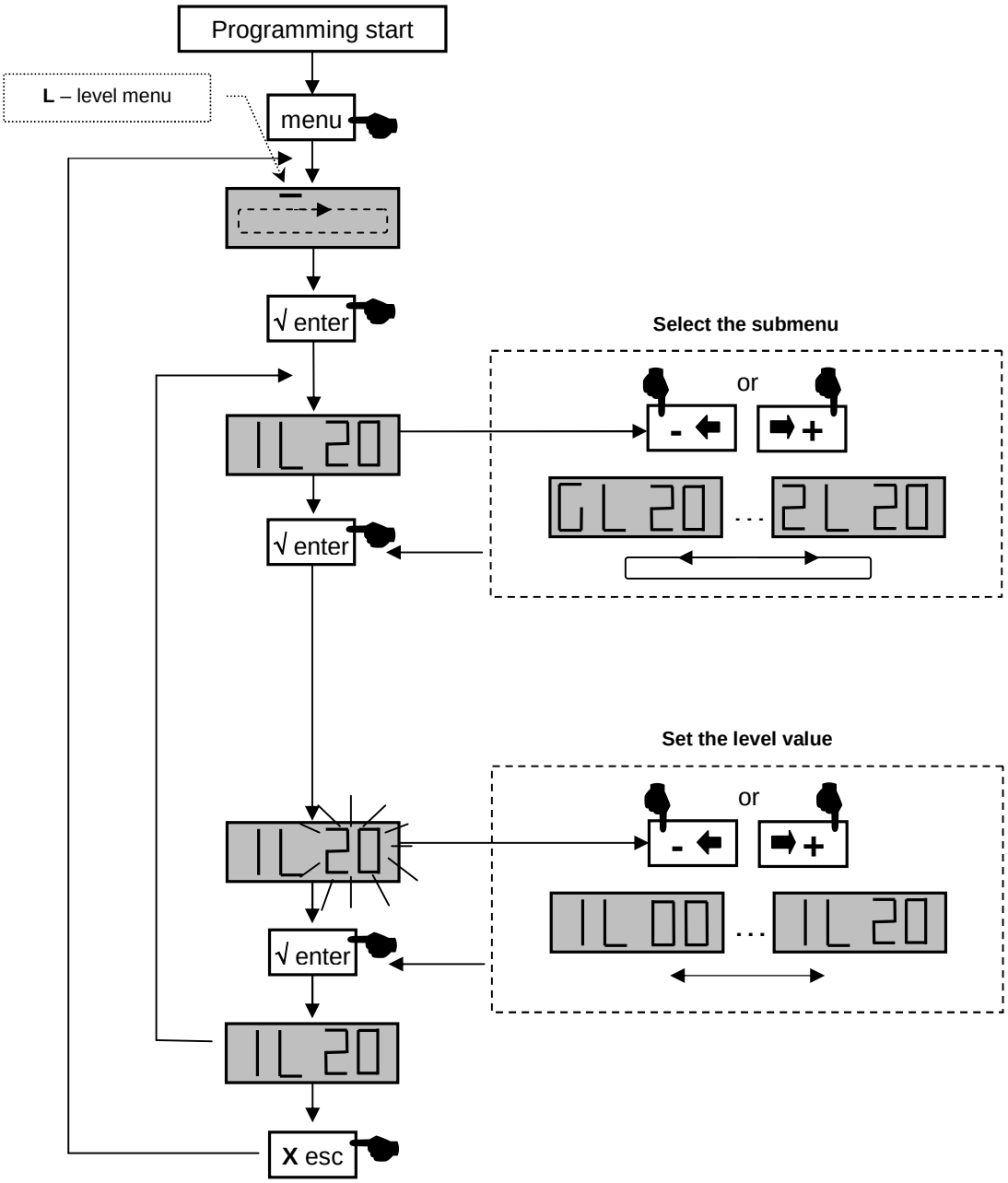
Start programming

CHAN (channel) menu


C – means channel menu
Number of starting channel. If the path is not used, you can see on the display "--".
If the dot lights, it means that the path cover more one channel – up to 6
Number of the path – from 1 to 10 (0 means path no. 10)
If the dot flashing, it means that the same channel is set in other path (e.g. P1->ch.21 and P2->ch.21)
Programming start
menu
C – channel menu
√ enter
X esc
Select the input path
or
Set the start channel
Set the stop channel
1 channel
max. 7 channels
21
27

LEVEL menu


L – means level menu
1L 20
1…0 - number of the path, from 1 to 10
H – VHF band (BIII)
F – FM band (BI/FM)
A – auxiliary input (AUX)
G – AGC
Value of the level, from 0 to 20.


Programming start
L – level menu
menu
√ enter
Select the submenu
or
- +
GL 20
2L 20
1L 20
√ enter
Set the level value
or
- +
1L 00
1L 20
1L 20
√ enter
1L 20
X esc

IN (input) menu

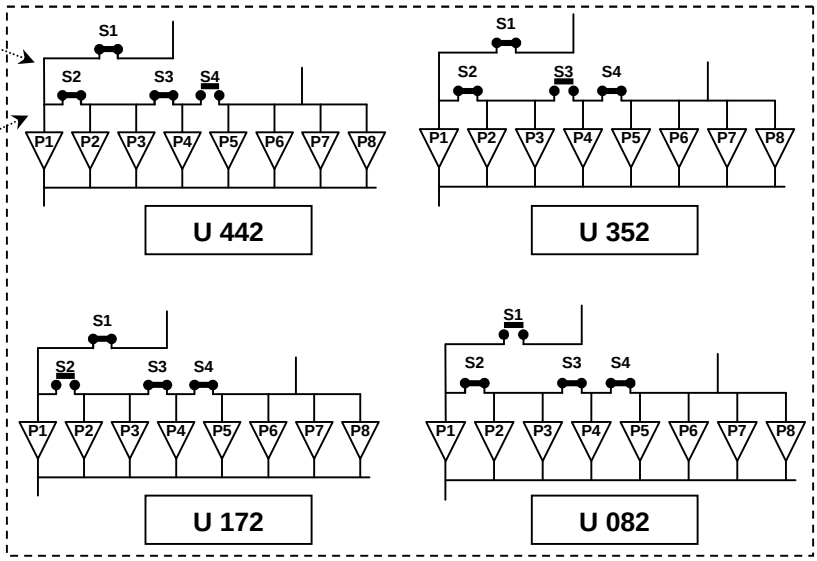
TMB0-10 B, C, S

442 – S4-off; S1, S2, S3-on;
352 – S3-off; S1, S2, S4-on;
172 – S2-off; S1, S3, S4-on;
082 – S1-off; S2, S3, S4-on;

TMB-10 A

42 – S4-off; S1, S2, S3-on
33 – S3-off; S1, S2, S4-on
15 – S2-off; S1, S3, S4-on
06 – S1-off: S2. S3. S4-on

Setting the input switches S1…S4



Programming start

menu

IN – input menu

√ enter

U 4 4 2

√ enter

Select submenu

or

U – Setting the input switches S1…S4;
Po – Setting the output power supply: 12V DC or 24V DC for external antennas preamplifier.
UHF1, UHF2, UHF3:
→ **P on/off** – Setting the input power supply for external TV preamplifier,
→ **A on/off –** switch gain (on -> +18dB) for inputs UHF1…UHF3

Po 12 . U 4 4 2 . 1oFF . 2on . 3oFF

More information about this function, you find in the next page.

Select the setting the input switches S1…S4

or

U 4 4 2

√ enter

U 0 8 2 ... U 4 4 2

U 4 4 2

X esc

Po 12

This menu describes the value of voltage at the inputs of amplifier UHF1…UHF3 to supply the external antenna's preamplifier. If impedance at the input is ≤ 75 Ω, then amplifiers automatically switches the power supplying of the input off.

√ enter

Select the power output

or

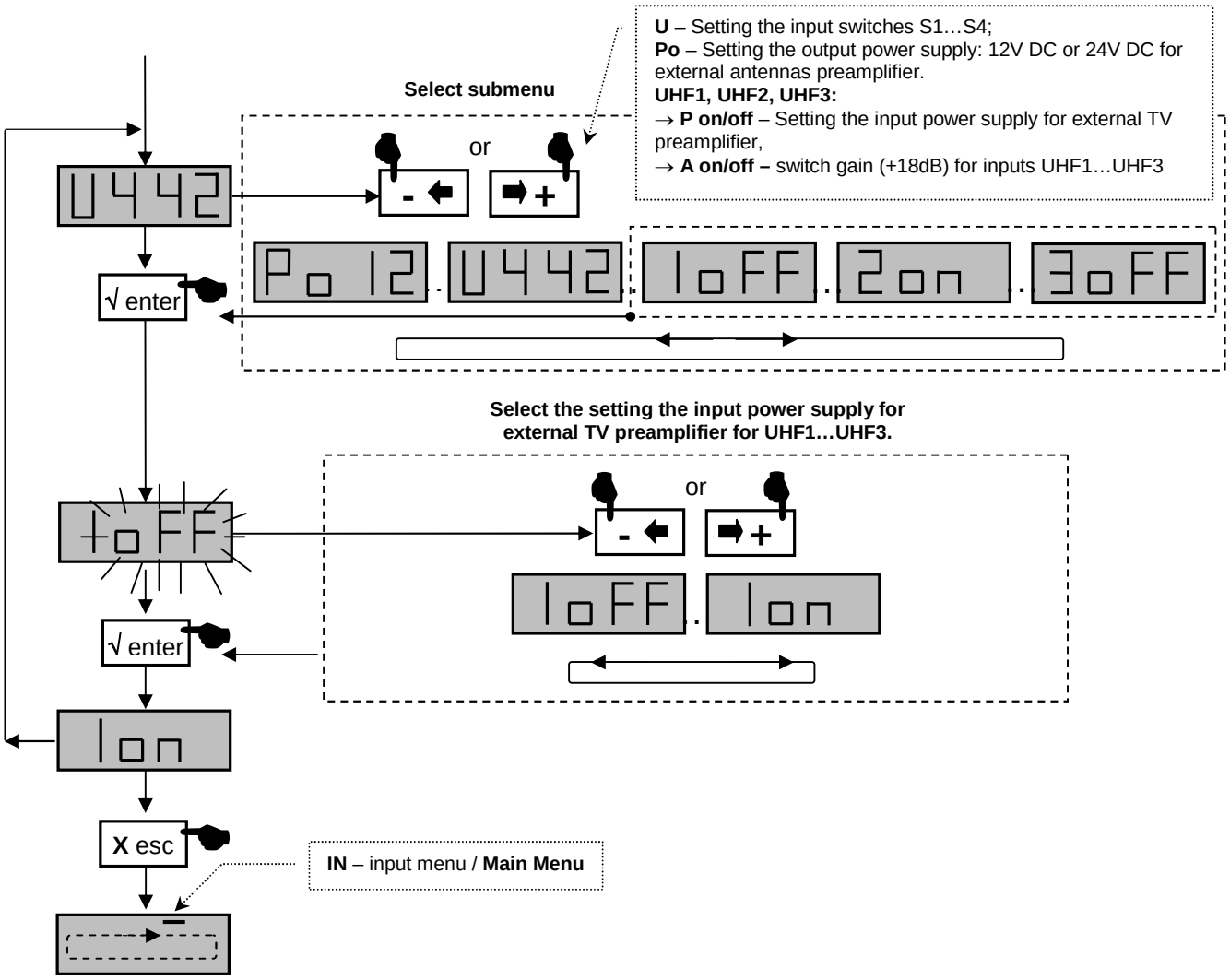
Po 12

√ enter

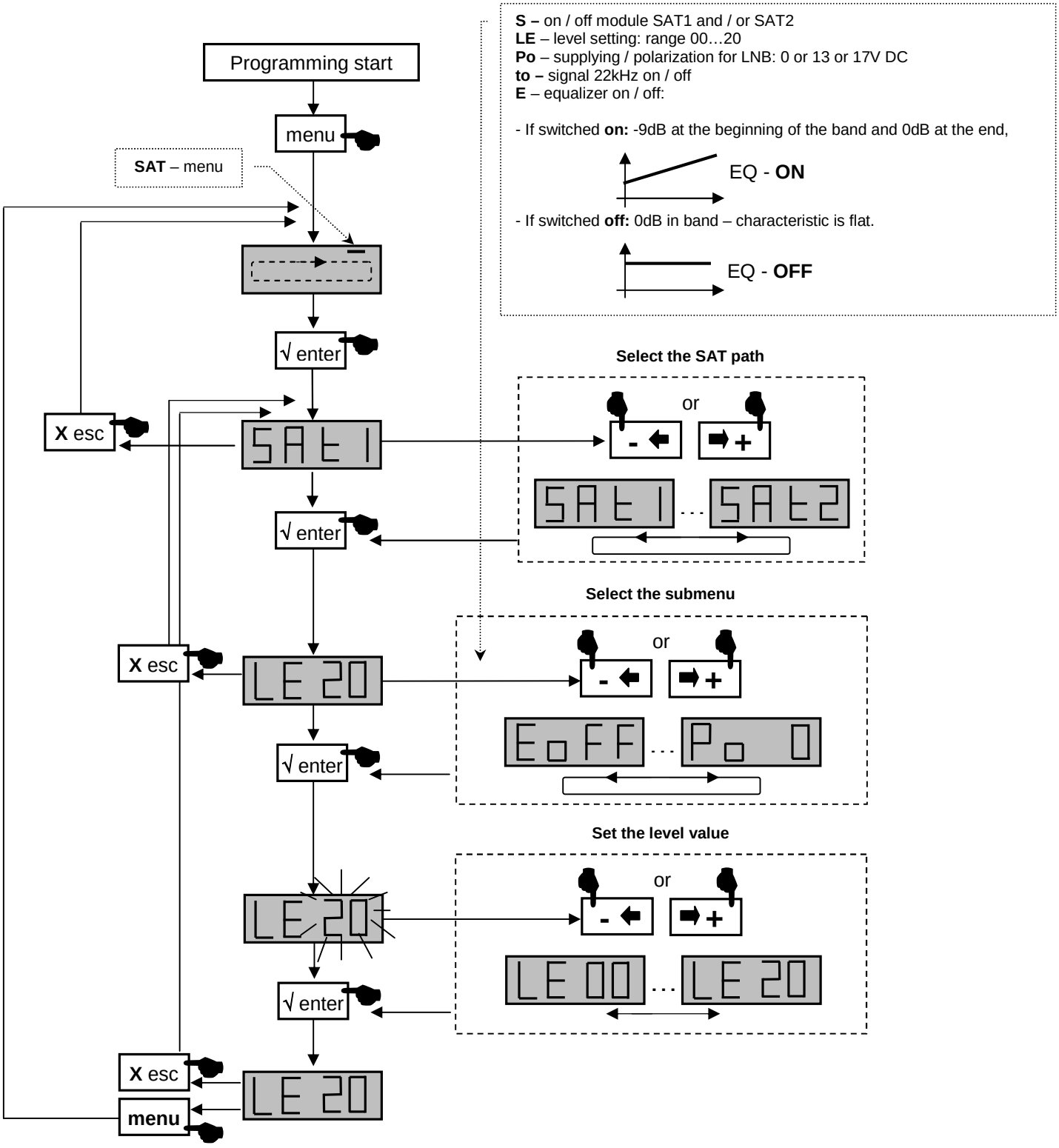
Po 12 ... Po 24

X esc

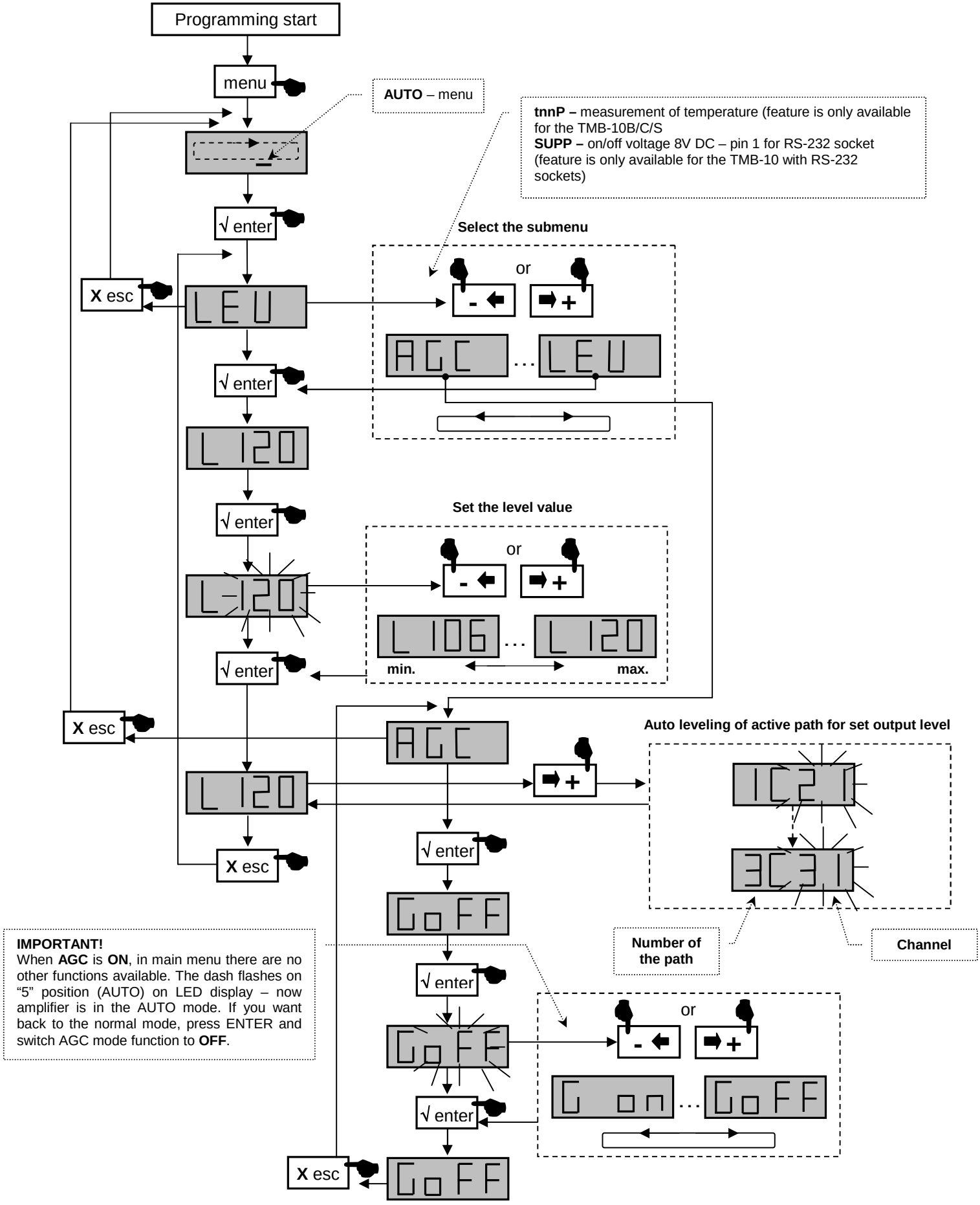
Po 12


U442
√ enter
Select submenu
or
Po 12
U442
1oFF
2on
3oFF
U – Setting the input switches S1…S4;
Po – Setting the output power supply: 12V DC or 24V DC for external antennas preamplifier.
UHF1, UHF2, UHF3:
→ **P on/off** – Setting the input power supply for external TV preamplifier,
→ **A on/off –** switch gain (+18dB) for inputs UHF1…UHF3
Select the setting the input power supply for external TV preamplifier for UHF1…UHF3.
1oFF
√ enter
or
1oFF
1on
1on
X esc
IN – input menu / **Main Menu**

SAT menu


S – on / off module SAT1 and / or SAT2
LE – level setting: range 00…20
Po – supplying / polarization for LNB: 0 or 13 or 17V DC
to – signal 22kHz on / off
E – equalizer on / off:
- If switched on: -9dB at the beginning of the band and 0dB at the end,
EQ - ON
- If switched off: 0dB in band – characteristic is flat.
EQ - OFF
Programming start
menu
SAT – menu
√ enter
X esc
SAt 1
Select the SAT path
or
SAt 1 ... SAt2
Select the submenu
LE 20
EoFF ... Po 0
Set the level value
LE00 ... LE 20
menu

AUTO menu


Programming start
menu
AUTO – menu
tnnP – measurement of temperature (feature is only available for the TMB-10B/C/S
SUPP – on/off voltage 8V DC – pin 1 for RS-232 socket (feature is only available for the TMB-10 with RS-232 sockets)
√ enter
Select the submenu
X esc
LEU
or
AGC ... LEU
L 120
Set the level value
L-120
L 106 ... L 120
min.
max.
AGC
Auto leveling of active path for set output level
IC2 1
3C3 1
L 120
GoFF
Number of the path
Channel
IMPORTANT!
When AGC is ON, in main menu there are no other functions available. The dash flashes on "5" position (AUTO) on LED display – now amplifier is in the AUTO mode. If you want back to the normal mode, press ENTER and switch AGC mode function to OFF.
G on ... GoFF

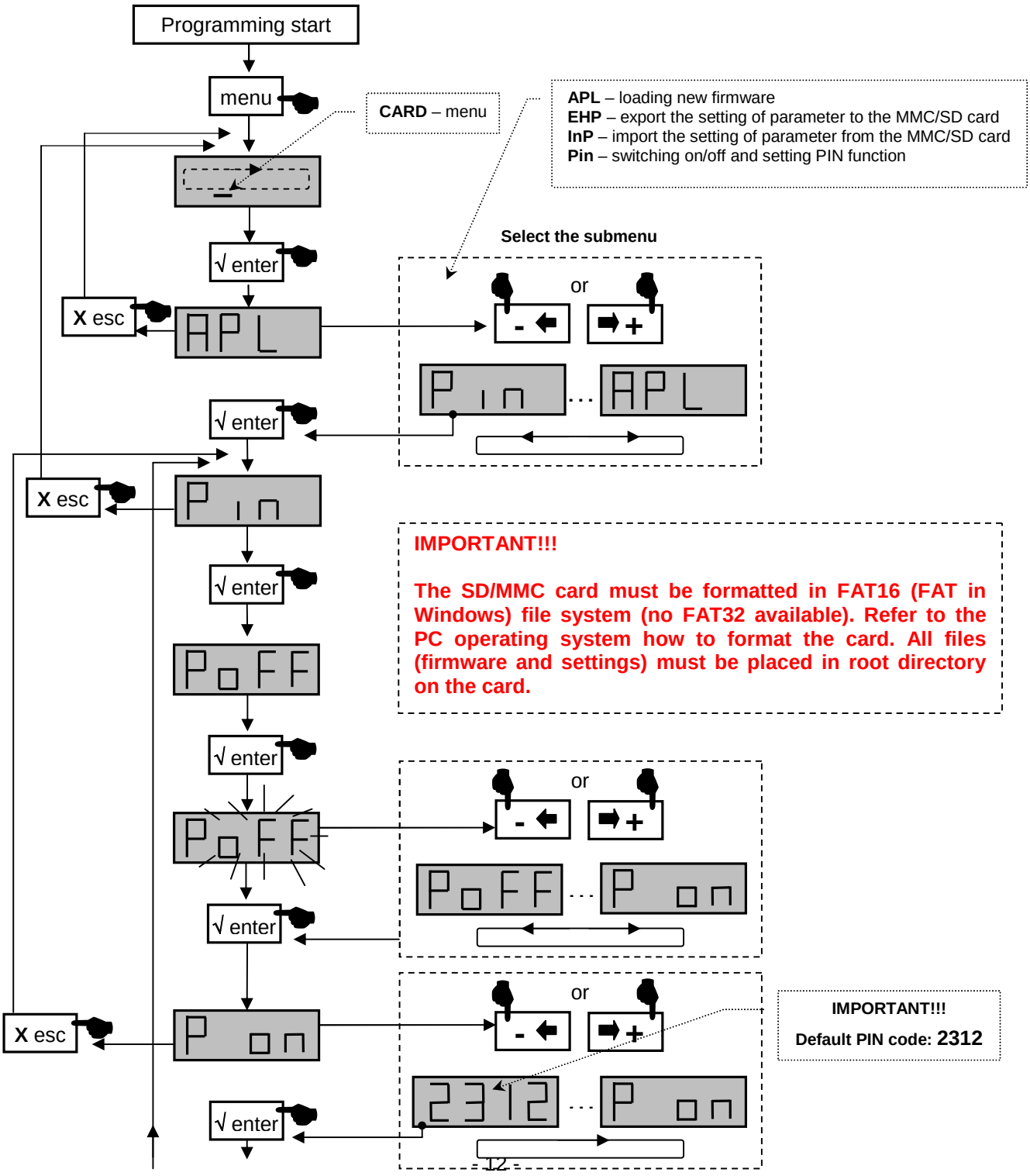
CARD menu

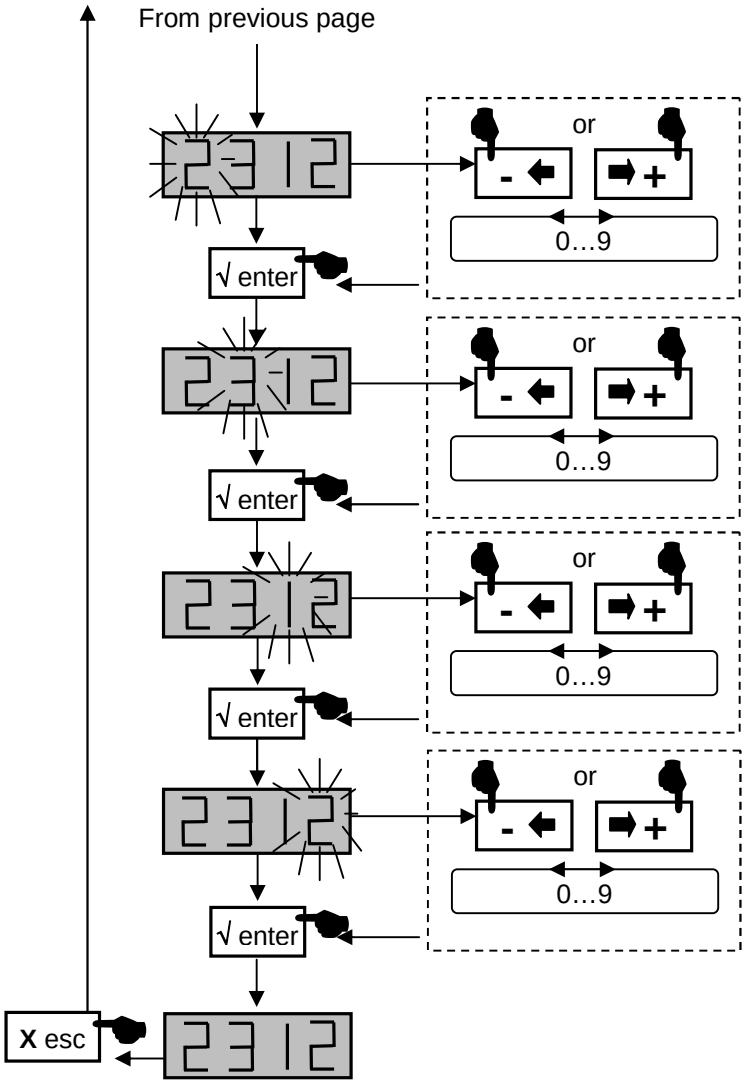
IMPORTANT!

APL menu – Put the MMC/SD card in the slot and press ENTER. If on the card is appropriate with the software (filename tm_tmb10.tlp), the software is automatically changed and on the display you can see **"Boot"** and the amplifier start from beginning. If there is no card or the file, the amplifier does software reset (it is no influence on the settings).

EHP menu – Put the MMC/SD card in the slot and press ENTER. If there is a card, there will be written on it with settings of the amplifier (filename: Snnn.tmb) and on the display you can see **"Good"**. If there is no appropriate card, you can see on the LED display **"Err"**.

InP menu – Put the SD/MMC card in the slot and press ENTER. If there is a card with the file "Snnn.tmb", the settings will be imported to the amplifier and on the display you can see **"Good"**. If there is no appropriate card or file, you can see on the LED display **"Err"**


Programming start
menu
CARD – menu
APL – loading new firmware
EHP – export the setting of parameter to the MMC/SD card
InP – import the setting of parameter from the MMC/SD card
Pin – switching on/off and setting PIN function
Select the submenu
√ enter
X esc
or
APL
Pin
PoFF
Pon
23'12
IMPORTANT!!!
The SD/MMC card must be formatted in FAT16 (FAT in Windows) file system (no FAT32 available). Refer to the PC operating system how to format the card. All files (firmware and settings) must be placed in root directory on the card.
IMPORTANT!!!
Default PIN code: 2312



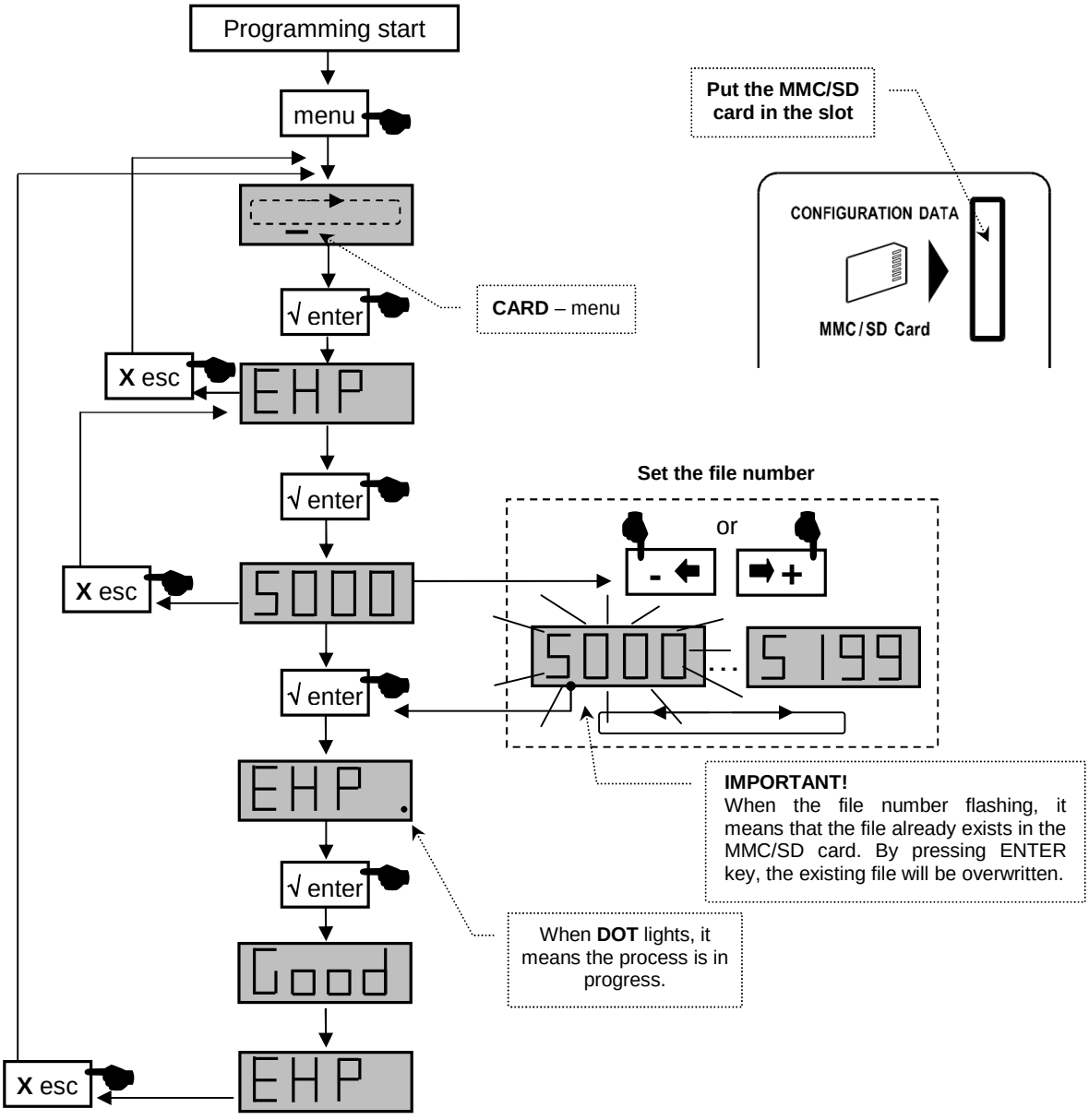
HINT!

If the PIN function is **ON**, when trying to enter to a menu you are asked for valid PIN number (you enter the PIN the same way as you set it in PIN submenu). If the entered PIN is correct you can see all submenus and may change all values. If entered PIN is valid (you do not have enter it once again) until 30 sec. of keys inactivity. After that time, when trying to menu a menu, you have to enter the PIN code again. In case you forgot the PIN code, all you can do is to switch the amplifier OFF, press ESC and switch it ON. This operation will reset all parameters, among them the PIN function.

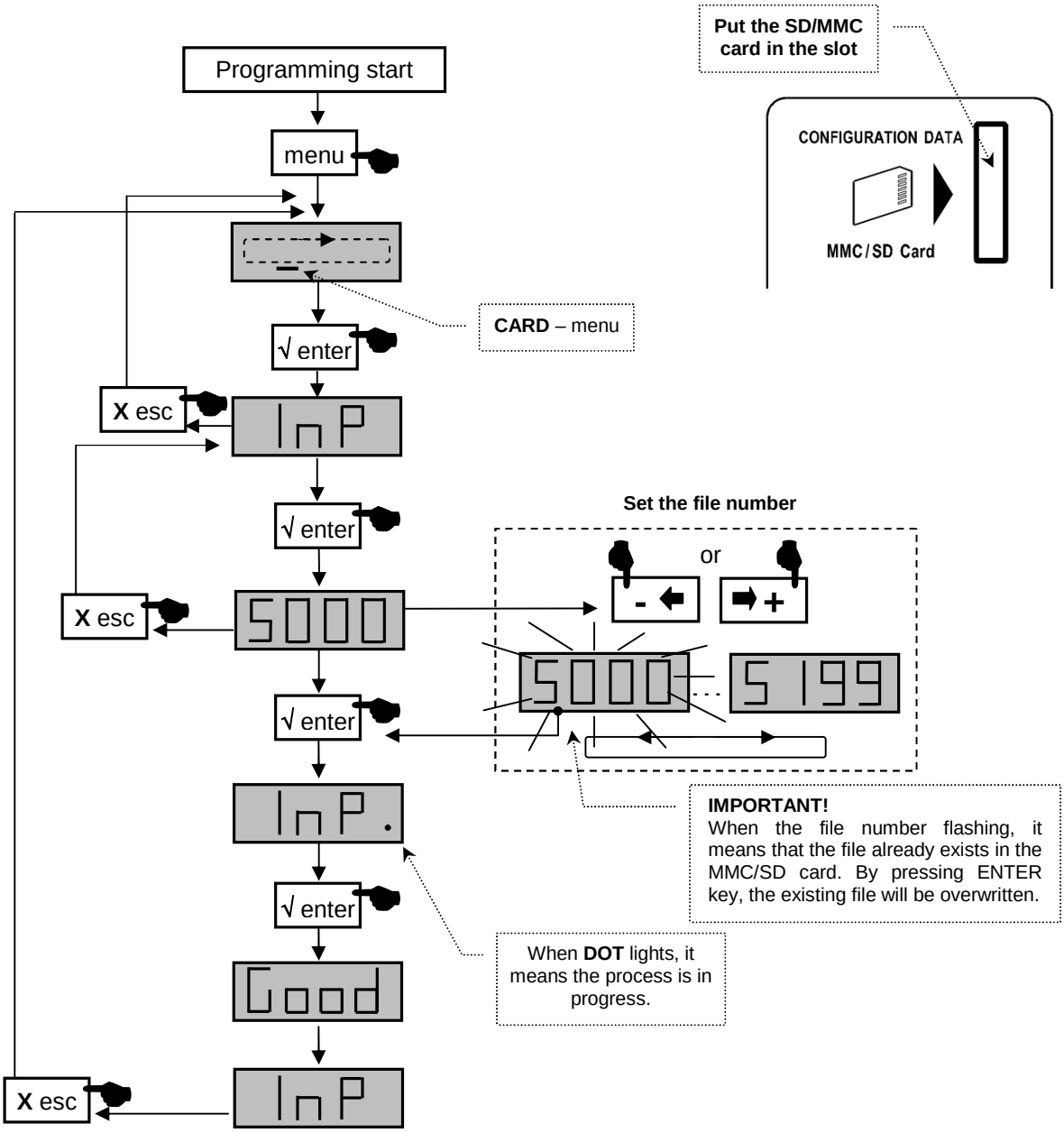
EHP (Export menu)

IMPORTANT!!!

The MMC/SD card must be formatted in FAT16 (FAT in Windows) file system (no FAT32 available) Refer to the PC operating system how to format the card. All files (firmware and settings) must be placed in root directory on the card.



InP (Import menu)



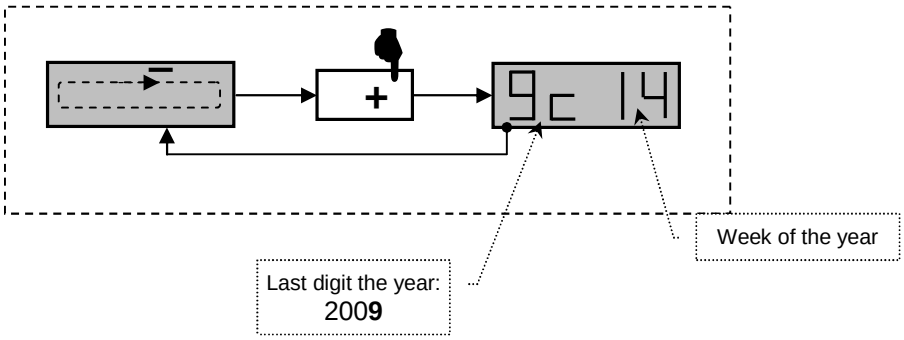
RESET to factory settings

By pressing ESC key when powering the device, you set default parameters (all user settings are cleared) You can also may see on the display four “8888” digits (test of the LED display).

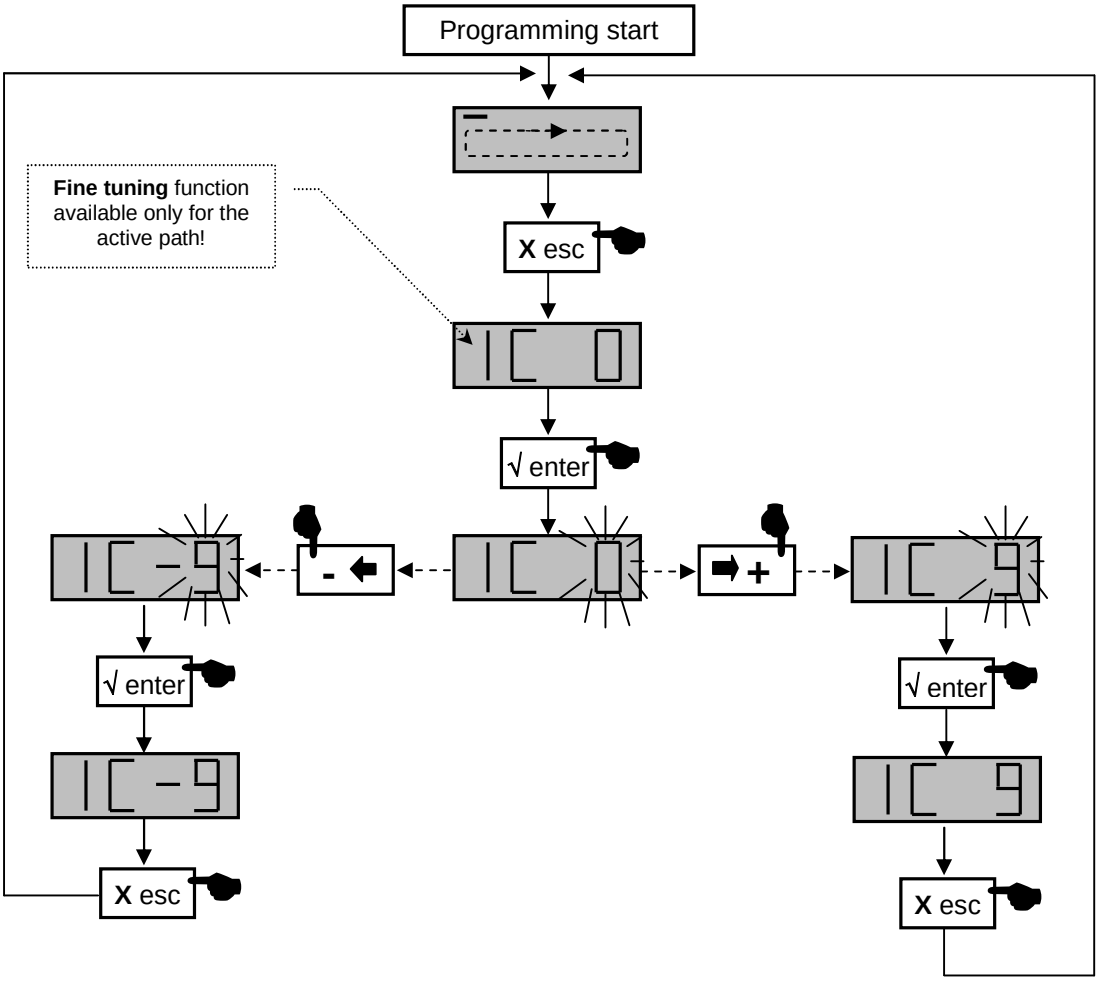
Extra features

Firmware version

By pressing “+” key you will see on the LED display as follows:



Fine tuning



Technical specifications

TMB-10 A/B/S/C/BU							
Inputs	**BI-FM**	**BIII-DAB (VHF)**	**AUX**	**UHF 1**	**UHF 2**	**UHF 3**	**SAT 1,2** (TMB-10S only)
Bandwidth (MHz)	47 to 108	174 to 230	47 to 862	470 to 862 1 or 7 channels / cluster			950 to 2150
UHF filter combination **TMB-10 B/S/C/BU** **(TMB-10 A)**	—			3 (3) 1 (1) – (–) 3 (4) 1 (–) – (–)	5 (3) 7 (5) 8 (6) – (2) – (–) – (–)	2 (–) 2 (–) 2 (–) 7 (–) 9 (–) 10 (–)	—
Gain (dB) **TMB-10 A/BU** **TMB-10 B** **TMB-10 S** **TMB-10 C**	 33 ±2 33 ±2 30 ±2 30 ±2	 48 ±2 48 ±2 45 ±2 45 ±2	 40 ±3 40 ±3 35 ±4 40 ±4	 55 ±3 55 / 37 ±3 50 / 32 ±3 45 / 27 ±3			 — — 40 ±4 —
Attenuator (dB)	20	20	20	20			20
Global output level attenuator (dB)	—			20			—
Slope switching (dB)	—			—			0 / 9
Noise figure (dB)	10	5	10	9 / –			10
Max. Input level (dBµV): **TMB-10 A/BU** **TMB-10 B/S** **TMB-10 C**	100	80	90	80 75 / 100 75 / 100			— 100 —
Max. Output level (dBµV)* **TMB-10 A/B/C/BU** **TMB-10 S**	123 @-60dBc 119 @-60dBc						— 122 @-35dBc
Selectivity	—		TMB-10S 20dB @950MHz	16dB / 16MHz			40dB @862 MHz
Ext. preamplifiers power supply	—			0/12/24V/80mA (each input)			—
LNB power supply and switching	—			—			0/13/17V/300mA 0/22kHz
Test output (dB)	-20 ±2						
Power supply	230 Vac / 35 VA						
Operating temperature (°C)	-5 to +50						
Dimensions (mm)	290 x 220 x 50						

* DIN45004B

DATA connector – pin description only for TMB-10 series with RS connector

1. **+8V**
2. **TxD**
3. **RxD**
4. **GND**
5. **GND**
6. **GND**
7. **GND**
8. **GND**
9. **GND**

DECLARATION OF CONFORMITY

TRIAX confirms that the product conforms to relevant EEC harmonized standards and consequently can carry CE-mark.

Relevant harmonized standards:

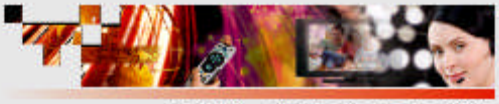
EN 50083 and EN 60065

This document is only valid with the signature of the person responsible for CE-marking by TRIAX

Date: *Signature*

TRIAX

www.triax.com



TRIAX – Su mejor conexión